



## RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number:

10/645,471

Source:

IFWO

Date Processed by STIC:

3/1/04

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 703-308-4212; FAX: 703-308-4221

Effective 12/13/03: TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkr41note.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - cPAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry directly to (EFFECTIVE 12/01/03):  
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 10/08/03

## Raw Sequence Listing Error Summary

ERROR DETECTED	SUGGESTED CORRECTION	SERIAL NUMBER: 10/645,471
ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE		
1 _____ Wrapped Nucleics Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."	
2 _____ Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.	
3 _____ Misaligned Amino Numbering	The numbering under each 5 <sup>th</sup> amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.	
4 _____ Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.	
5 _____ Variable Length	Sequence(s) _____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.	
6 _____ PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.	
7 _____ Skipped Sequences (OLD RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped  Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.	
8 _____ Skipped Sequences (NEW RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000	
9 _____ Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.	
10 ✓ Invalid <213> Response	Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence	
11 _____ Use of <220>	Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 08/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)	
12 _____ PatentIn 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.	
13 _____ Misuse of n/Xaa	"n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid	



IFWO

## RAW SEQUENCE LISTING

DATE: 03/01/2004

PATENT APPLICATION: US/10/645,471

TIME: 07:09:10

Input Set : D:\53223-20005.00 - SEQ Listing.txt

Output Set: N:\CRF4\03012004\J645471.raw

4 <110> APPLICANT: Ebbinghaus, Scot W.  
 5 Hurley, Laurence H.  
 6 Siddiqui-Jain, Adam  
 7 Memmott, Regan  
 9 <120> TITLE OF INVENTION: METHODS FOR REGULATING TRANSCRIPTION BY  
 10 TARGETING QUADRUPLX DNA  
 13 <130> FILE REFERENCE: 532232000500  
 15 <140> CURRENT APPLICATION NUMBER: 10/645,471  
 16 <141> CURRENT FILING DATE: 2003-08-20  
 18 <150> PRIOR APPLICATION NUMBER: 60/404,965  
 19 <151> PRIOR FILING DATE: 2002-08-20  
 21 <160> NUMBER OF SEQ ID NOS: 32  
 23 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
 25 <210> SEQ ID NO: 1  
 26 <211> LENGTH: 12  
 27 <212> TYPE: DNA  
 28 <213> ORGANISM: Unknown  
 30 <220> FEATURE:  
 31 <223> OTHER INFORMATION: oligonucleotide  
 33 <400> SEQUENCE: 1  
 34 ggaggaggag ga 12  
 36 <210> SEQ ID NO: 2  
 37 <211> LENGTH: 11  
 38 <212> TYPE: DNA  
 39 <213> ORGANISM: Unknown  
 41 <220> FEATURE:  
 42 <223> OTHER INFORMATION: oligonucleotide  
 44 <400> SEQUENCE: 2  
 45 ggaggaggag g 11  
 47 <210> SEQ ID NO: 3  
 48 <211> LENGTH: 22  
 49 <212> TYPE: DNA  
 50 <213> ORGANISM: Unknown  
 52 <220> FEATURE:  
 53 <223> OTHER INFORMATION: oligonucleotide  
 55 <400> SEQUENCE: 3  
 56 ggaggaggag gggaggagga gg 22  
 58 <210> SEQ ID NO: 4  
 59 <211> LENGTH: 23  
 60 <212> TYPE: DNA  
 61 <213> ORGANISM: Artificial Sequence  
 63 <220> FEATURE:  
 64 <223> OTHER INFORMATION: oligonucleotide

Does Not Comply  
Corrected Diskette Needed

(ps. 2)

## RAW SEQUENCE LISTING

DATE: 03/01/2004

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TIME: 07:09:10

Input Set : D:\53223-20005.00 - SEQ Listing.txt

Output Set: N:\CRF4\03012004\J645471.raw

W--> 66 <221> NAME/KEY: misc\_feature  
67 <222> LOCATION: 12  
68 <223> OTHER INFORMATION: n = A,T,C or G

W--> 70 <400> 4

W--> 71 ggaggaggag gnggaggagg agg 23  
73 <210> SEQ ID NO: 5  
74 <211> LENGTH: 24  
75 <212> TYPE: DNA  
76 <213> ORGANISM: Unknown  
78 <220> FEATURE:  
79 <223> OTHER INFORMATION: oligonucleotide

W--> 81 <221> NAME/KEY: misc\_feature  
82 <222> LOCATION: 12, 13  
83 <223> OTHER INFORMATION: n = A,T,C or G

W--> 85 <400> 5

W--> 86 ggaggaggag gnnngaggag gagg 24  
88 <210> SEQ ID NO: 6  
89 <211> LENGTH: 25  
90 <212> TYPE: DNA  
91 <213> ORGANISM: Unknown  
93 <220> FEATURE:  
94 <223> OTHER INFORMATION: oligonucleotide

W--> 96 <221> NAME/KEY: misc\_feature  
97 <222> LOCATION: 12, 13, 14  
98 <223> OTHER INFORMATION: n = A,T,C or G

W--> 100 <400> 6

W--> 101 ggaggaggag gnnngaggag gagg 25  
103 <210> SEQ ID NO: 7  
104 <211> LENGTH: 26  
105 <212> TYPE: DNA  
106 <213> ORGANISM: Unknown  
108 <220> FEATURE:  
109 <221> NAME/KEY: misc\_feature  
110 <222> LOCATION: 12, 13, 14, 15  
111 <223> OTHER INFORMATION: n = A,T,C or G  
113 <400> SEQUENCE: 7

W--> 114 ggaggaggag gnnngaggag gaggag 26  
116 <210> SEQ ID NO: 8  
117 <211> LENGTH: 27  
118 <212> TYPE: DNA  
119 <213> ORGANISM: Unknown  
121 <220> FEATURE:  
122 <223> OTHER INFORMATION: oligonucleotide

W--> 124 <221> NAME/KEY: misc\_feature  
125 <222> LOCATION: 12, 13, 14, 15, 16  
126 <223> OTHER INFORMATION: n = A,T,C or G

W--> 128 <400> 8

W--> 129 ggaggaggag gnnnnngagg gaggagg 27  
131 <210> SEQ ID NO: 9

please correct spelling  
mandatory, if 62137  
response is Artificial  
Unknown, please explain  
in section 62007-62237.  
Please see item #10  
on error summary  
sheet.

## RAW SEQUENCE LISTING

DATE: 03/01/2004

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TIME: 07:09:10

Input Set : D:\53223-20005.00 - SEQ Listing.txt

Output Set: N:\CRF4\03012004\J645471.raw

132 <211> LENGTH: 28  
 133 <212> TYPE: DNA  
 134 <213> ORGANISM: Unknown  
 136 <220> FEATURE:  
 137 <223> OTHER INFORMATION: oligonucleotide  
 W--> 139 <221> NAME/KEY: misc\_feature  
 140 <222> LOCATION: 12, 13, 14, 15, 16, 17  
 141 <223> OTHER INFORMATION: n = A,T,C or G  
 W--> 143 <400> 9  
 W--> 144 ggaggaggag gnnnnnnnga ggaggagg 28  
 146 <210> SEQ ID NO: 10  
 147 <211> LENGTH: 29  
 148 <212> TYPE: DNA  
 149 <213> ORGANISM: Unknown  
 151 <220> FEATURE:  
 152 <223> OTHER INFORMATION: oligonucleotide  
 W--> 154 <221> NAME/KEY: misc\_feature  
 W--> 155 <222> LOCATION: 12, 13, 14, 15, 16, 17, 18  
 156 <223> OTHER INFORMATION: n = A,T,C or G  
 158 <400> SEQUENCE: 10  
 W--> 159 ggaggaggag gnnnnnnngg agggaggagg 29  
 161 <210> SEQ ID NO: 11  
 162 <211> LENGTH: 30  
 163 <212> TYPE: DNA  
 164 <213> ORGANISM: Unknown  
 166 <220> FEATURE:  
 167 <223> OTHER INFORMATION: oligonucleotide  
 W--> 169 <221> NAME/KEY: misc\_feature  
 170 <222> LOCATION: 12, 13, 14, 15, 16, 17, 18, 19  
 171 <223> OTHER INFORMATION: n = A,T,C or G  
 W--> 173 <400> 11  
 W--> 174 ggaggaggag gnnnnnnnng gaggaggagg 30  
 176 <210> SEQ ID NO: 12  
 177 <211> LENGTH: 31  
 178 <212> TYPE: DNA  
 179 <213> ORGANISM: Unknown  
 181 <220> FEATURE:  
 182 <223> OTHER INFORMATION: oligonucleotide  
 W--> 184 <221> NAME/KEY: misc\_feature  
 185 <222> LOCATION: 12, 13, 14, 15, 16, 17, 18, 19, 20  
 186 <223> OTHER INFORMATION: n = A,T,C or G  
 W--> 188 <400> 12  
 W--> 189 ggaggaggag gnnnnnnnnn ggaggaggag g 31  
 191 <210> SEQ ID NO: 13  
 192 <211> LENGTH: 32  
 193 <212> TYPE: DNA  
 194 <213> ORGANISM: Unknown  
 196 <220> FEATURE:  
 197 <223> OTHER INFORMATION: oligonucleotide

*please correct spelling*

## RAW SEQUENCE LISTING

DATE: 03/01/2004

PATENT APPLICATION: US/10/645,471

TIME: 07:09:10

Input Set : D:\53223-20005.00 - SEQ Listing.txt

Output Set: N:\CRF4\03012004\J645471.raw

```

W--> 199 <221> NAME/KEY: misc feature
      200 <222> LOCATION: 12, 13, 14, 15, 16, 17, 18, 19, 20, 21
      201 <223> OTHER INFORMATION: n = A,T,C or G
W--> 203 <400> 13
W--> 204 ggaggaggag gnnnnnnnnn nggaggagga gg 32
      206 <210> SEQ ID NO: 14
      207 <211> LENGTH: 66
      208 <212> TYPE: DNA
      209 <213> ORGANISM: Unknown
      211 <220> FEATURE:
      212 <223> OTHER INFORMATION: oligonucleotide
      214 <400> SEQUENCE: 14
      215 tttctcagga gaaagagcag cagcagctca cggaggagga ggagaaggag gaggaggaaa 60
      216 caggtt 66
      218 <210> SEQ ID NO: 15
      219 <211> LENGTH: 27
      220 <212> TYPE: DNA
      221 <213> ORGANISM: Unknown
      223 <220> FEATURE:
      224 <223> OTHER INFORMATION: oligonucleotide
      226 <400> SEQUENCE: 15
      227 ggaggaggag gaagaggagg aggaggg 27
      229 <210> SEQ ID NO: 16
      230 <211> LENGTH: 38
      231 <212> TYPE: DNA
      232 <213> ORGANISM: Unknown
      234 <220> FEATURE:
      235 <223> OTHER INFORMATION: oligonucleotide
      237 <400> SEQUENCE: 16
      238 agagaagagg ggaggaggag gaggagagga ggaggcgc 38
      240 <210> SEQ ID NO: 17
      241 <211> LENGTH: 13
      242 <212> TYPE: DNA
      243 <213> ORGANISM: Unknown
      245 <220> FEATURE:
      246 <223> OTHER INFORMATION: oligonucleotide
      248 <400> SEQUENCE: 17
      249 ggagggggag ggg 13
      251 <210> SEQ ID NO: 18
      252 <211> LENGTH: 28
      253 <212> TYPE: DNA
      254 <213> ORGANISM: Unknown
      256 <220> FEATURE:
      257 <223> OTHER INFORMATION: oligonucleotide
      259 <400> SEQUENCE: 18
      260 aggagaagga ggaggtggag gaggaggg 28
      262 <210> SEQ ID NO: 19
      263 <211> LENGTH: 32
      264 <212> TYPE: DNA

```

## RAW SEQUENCE LISTING

DATE: 03/01/2004

PATENT APPLICATION: US/10/645,471

TIME: 07:09:10

Input Set : D:\53223-20005.00 - SEQ Listing.txt

Output Set: N:\CRF4\03012004\J645471.raw

```

265 <213> ORGANISM: Unknown
267 <220> FEATURE:
268 <223> OTHER INFORMATION: oligonucleotide
270 <400> SEQUENCE: 19
271 ggaggaggaa gaatgcgagg aggagggagg ag 32
273 <210> SEQ ID NO: 20
274 <211> LENGTH: 25
275 <212> TYPE: DNA
276 <213> ORGANISM: Unknown
278 <220> FEATURE:
279 <223> OTHER INFORMATION: oligonucleotide
281 <400> SEQUENCE: 20
282 ccgaaggagg aaggaggagg agggg 25
284 <210> SEQ ID NO: 21
285 <211> LENGTH: 35
286 <212> TYPE: DNA
287 <213> ORGANISM: Unknown
289 <220> FEATURE:
290 <223> OTHER INFORMATION: oligonucleotide
292 <400> SEQUENCE: 21
293 agcgaggagg aggaggagga ggaggaggag aggaa 35
295 <210> SEQ ID NO: 22
296 <211> LENGTH: 17
297 <212> TYPE: DNA
298 <213> ORGANISM: Unknown
300 <220> FEATURE:
301 <223> OTHER INFORMATION: oligonucleotide
303 <400> SEQUENCE: 22
304 agaagaggga ggaggag 17
306 <210> SEQ ID NO: 23
307 <211> LENGTH: 13
308 <212> TYPE: DNA
309 <213> ORGANISM: Unknown
311 <220> FEATURE:
312 <223> OTHER INFORMATION: oligonucleotide
314 <400> SEQUENCE: 23
315 ggaaggagga gga 13
317 <210> SEQ ID NO: 24
318 <211> LENGTH: 21
319 <212> TYPE: DNA
320 <213> ORGANISM: Unknown
322 <220> FEATURE:
323 <223> OTHER INFORMATION: oligonucleotide
325 <400> SEQUENCE: 24
326 ctctctctcc ttccccctccc c 21
328 <210> SEQ ID NO: 25
329 <211> LENGTH: 16
330 <212> TYPE: DNA
331 <213> ORGANISM: Unknown

```

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/645,471

DATE: 03/01/2004  
TIME: 07:09:11

Input Set : D:\53223-20005.00 - SEQ Listing.txt  
Output Set: N:\CRF4\03012004\J645471.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:4; N Pos. 12 ✓  
Seq#:5; N Pos. 12,13 ✓  
Seq#:6; N Pos. 12,13,14 ✓  
Seq#:7; N Pos. 12,13,14,15 ✓  
Seq#:8; N Pos. 12,13,14,15,16 ✓  
Seq#:9; N Pos. 12,13,14,15,16,17 ✓  
Seq#:10; N Pos. 12,13,14,15,16,17,18 ✓  
Seq#:11; N Pos. 12,13,14,15,16,17,18,19 ✓  
Seq#:12; N Pos. 12,13,14,15,16,17,18,19,20 ✓  
Seq#:13; N Pos. 12,13,14,15,16,17,18,19,20,21 ✓



## VERIFICATION SUMMARY

DATE: 03/01/2004

PATENT APPLICATION: US/10/645,471

TIME: 07:09:11

Input Set : D:\53223-20005.00 - SEQ Listing.txt

Output Set: N:\CRF4\03012004\J645471.raw

L:66 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:70 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:4  
L:71 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0  
L:81 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:85 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:5  
L:86 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0  
L:96 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:100 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:6  
L:101 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0  
L:114 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0  
L:124 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:128 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:8  
L:129 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0  
L:139 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:143 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:9  
L:144 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0  
L:154 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:155 M:281 W: Numeric Fields not Ordered, <222> Sort in ascending order!  
L:159 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0  
L:169 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:173 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:11  
L:174 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0  
L:184 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:188 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:12  
L:189 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0  
L:199 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:203 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:13  
L:204 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0